

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

To:

see form PCT/ISA/220

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/JP2004/014540

International filing date (day/month/year)  
27.09.2004

Priority date (day/month/year)  
15.10.2003

International Patent Classification (IPC) or both national classification and IPC  
C07D285/08, C07D417/04, A01N43/836

Applicant  
SUMITOMO CHEMICAL COMPANY, LIMITED

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

**10/567984**  
International application No.  
PCT/JP2004/014540

**IAP20 Rec'd PCT/PTO 10 FEB 2006**

**Box No. I Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2004/014540

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**Box No. II Priority**

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1. ☐ The following document has not been furnished:

☐ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☒ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

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**Box No. VI Certain documents cited**

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1. Certain published documents (Rules 43*bis*.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43*bis*.1 and 70.9)

see form 210

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/JP2004/014540

IAP20 Rec'd PCT/PTO 10 FEB 2006

**AD SECTION V:**

1. The following documents cited in the International Search Report are considered.  
D1: DE 30 30 661 A1 (BAYER AG) 1 April 1982 (1982-04-01)  
D2: EP-A-0 200 334 (FBC LIMITED; SCHERING AGROCHEMICALS LIMITED)  
5 November 1986 (1986-11-05)  
D3: EP-A-0 623 604 (BAYER AG) 9 November 1994 (1994-11-09)
2. There is an overlap between the range of compounds as defined in claims 1 and 4 of D1 and the compounds of present claims 1-5, however, as D1 does not specifically disclose 1,2,4-thiadiazole derivatives having a propargyloxy group at the 3-position and a cyclic amine group at the 5-position, the claimed compounds may be considered to represent a novel selection from the compounds of D1. The thiadiazole compounds disclosed in D2 and D3 differ on account of the nature of the substituents at positions 3 and 5 from the present compounds. Having regard to the prior art cited in the Search Report the subject-matter claimed appears to meet the requirements of Article 33(2) PCT.
3. Document D1, which represents the closest prior art, teaches propargyloxy substituted 5-membered heteroaromatic rings containing an oxygen or sulfur atom and additionally 1 to 3 nitrogen atoms which may be substituted. These compounds are disclosed to be useful in controlling arthropod pests (cf page 24, lines 1-4).  
As indicated above the claimed compounds are considered to represent a novel selection from the teaching of D1.  
Such a selection, however, is only considered to involve an inventive step, if the compounds selected possess some unexpected effect or advantage with respect to the range of compounds they are selected from.  
Since at present no such properties are evident, it is considered that the subject-matter according to claims 1-10 does not meet the requirements of Article 33(3) PCT.
4. No objections with regard to Article 33(4) PCT arise for claims 1-10.

**AD SECTION VI:**

**Certain documents cited**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

**PCT/JP2004/014540**

**Certain published documents**

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO2004/046125	03.06.04	28.10.03	21.11.02

The priority documents pertaining to the present application were not available at the time of establishing this written opinion. Hence, it is based on the assumption that all claims enjoy priority rights from the filing date of the priority document. If it later turns out that this is not correct, the document cited above could become relevant to assess whether claims 1-10 satisfy the criteria set forth in Article 33(1) PCT.